

What is claimed is:

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1. An apparatus for generating a 3-dimensional image from at least two plane images, comprising:

left and right plane image display devices for simultaneously outputting left and right plane images received with respect to the same object from left and right sides to a screen;

left and right image inverting devices for inverting original left and right images and outputting inverted left and right images;

a left reflection mirror, on which the inverted left image is incident and reflected at the same angle, so that the reflected left image is perceived by a left eye of a viewer; and

a right reflection mirror, on which the inverted right image is incident and reflected at the same angle, so that the reflected right image is perceived by a right eye of a viewer.

2. The apparatus of Claim 1, wherein positions of the left and right plane image display devices and the left and right reflection mirrors are automatically or manually adjusted so as to maintain an incident angle of an image input to each of the left and right reflection mirrors from the left and right plane image display devices to be the same as a reflection angle of an image reflected by each of the left and right reflection mirrors which is to be seen by each of the left and right eyes of a viewer.

3. The apparatus of Claim 1, wherein each of the left and right plane image display devices comprises a television monitor, a big-screen wall mount TV, a computer monitor, or a LCD.

4. The apparatus of Claim 1, wherein, in the left and right reflection mirrors, incident angles of the left and right plane images and reflection angles of the images reflected to the viewer are adjusted in a range of about 30°- 50°.

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5. An apparatus for generating a 3-dimensional image from at least two plane images, comprising:

first left and right plane image display devices for simultaneously outputting the same plane images from left and right sides;

second left and right plane image display devices for simultaneously outputting the same plane images from left and right sides which are different from the images output from the first left and right plane image display devices;

left and right image inverting devices for inverting original left and right images;

a first left mirror for synthesizing an image output from the left plane image display device after inversion by the left image inverting device which is incident at a predetermined angle and the original image output from the second left plane image display device which is incident at a predetermined angle, and outputting a left synthesized image;

a first right mirror for synthesizing an image output from the right plane image display device after inversion by the right image inverting device which is incident at a predetermined angle and the original image output from the second right plane image display device which is incident at a predetermined angle, and outputting a right synthesized image;

a second left mirror, on which the left synthesized image is incident and reflected at the same angle, so that the left synthesized image is perceived by a left eye of a viewer; and

a second right mirror, on which the right synthesized image is incident and reflected at the same angle, so that the right synthesized image is perceived by a right eye of a viewer.

6. The apparatus of Claim 5, wherein each of the first left and right mirrors has two sides transmitting and reflecting an input image, respectively.

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7. The apparatus of Claim 6, wherein each of the first left and right mirrors has transmittance of about 50% and reflectance of about 50%.

8. The apparatus of Claim 5, wherein, in the first and second left and right mirrors, incident angles of the left and right plane images and reflection angles of the images reflected to the viewer are adjusted in a range of about 30° - 50°.

Sub 9. An apparatus for generating a 3-dimensional image from at least two plane images, comprising:

first and second image display devices configured to substantially simultaneously output first and second plane images for a first object, respectively, each image being produced at first and second positions with respect to the first object;

first and second inverting devices configured to invert the left and right sides of the first and second plane images, respectively;

a first mirror located between the first and second display devices and configured to receive and reflect the first inverted image in a first direction; and

a second mirror located between the first and second display devices and configured to receive and reflect the second inverted image in the first direction;

wherein the first and second display devices are located on opposite sides of the first and second mirrors.

10. The apparatus of Claim 9, wherein the first and second mirrors are arranged such that the two mirrors as a whole are substantially "V" shaped.

11. The apparatus of Claim 10, wherein at least one of the first and second mirrors has transmittance of about 50% and reflectance of about 50%.

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12. The apparatus of Claim 9, wherein each of the first and second mirrors has reflectance that is greater than 50%.

13. The apparatus of Claim 9, wherein each of the display devices comprise a computer monitor, a TV, a LCD, or any other plane image display device.

14. The apparatus of Claim 9, wherein the first and second positions are substantially symmetric with respect to a line that passes the first object in a latitudinal direction.

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15. The apparatus of Claim 9, further comprising:  
third and fourth image display devices configured to substantially simultaneously output first and second plane images for a second object, respectively, each image being produced at different positions with respect to the second object;

a third mirror located between the first display device and the first mirror, the third mirror having first and second sides opposing each other, the first side of the third mirror being configured to receive and transmit the first inverted image to the first mirror, the second side of the third mirror being configured to receive and reflect the third image to the first mirror; and

a fourth mirror located between the second display device and the second mirror, the fourth mirror having first and second sides opposing each other, the first side of the fourth mirror being configured to receive and transmit the second inverted plane image to the second mirror, the second side of the fourth mirror being configured to receive and reflect the fourth image to the second mirror;

wherein the first and second mirrors are configured to reflect the transmitted and reflected images from the third and fourth mirror in the first direction, respectively.

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16. An apparatus for generating a 3-dimensional image from at least two plane images, comprising:

first and second image display devices configured to substantially simultaneously output first and second plane images for a first object, respectively, each image being produced at different positions with respect to the first object;

first and second mirrors configured to receive and reflect the first and second images in a first direction and a second direction opposing the first direction;

a third mirror configured to receive and reflect the image reflected from the first mirror in a third direction that is substantially perpendicular to the first direction; and

a fourth mirror configured to receive and reflect the image reflected from the second mirror in a fourth direction that is the same as the third direction and substantially perpendicular to the second direction;

wherein the first and second display devices are located on opposite sides of the first and second mirrors,

and wherein the first and second mirrors are located on opposite sides of the third and fourth mirrors.

17. The apparatus of Claim 16, wherein the first and second mirrors are arranged such that the two mirrors as a whole are substantially "V" shaped.

18. The apparatus of Claim 16, wherein at least one of the first, second, third, and fourth mirrors has reflectance that is greater than 50%.

sub 19. An apparatus for generating a 3-dimensional image from at least two plane images, comprising:

first and second image display devices configured to substantially simultaneously output first and second plane images for a first object,

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respectively, each image being produced at different positions with respect to the first object;

an inverting device configured to invert the left and right side of the first plane image;

a mirror configured to receive and reflect the inverted image in a direction;

wherein the first and second display devices are located on opposite sides of the mirror,

and wherein the second display device is arranged to output the second plane image in the direction.

20. A method of generating a 3-dimensional image from at least two plane images, comprising:

outputting substantially simultaneously first and second plane images for a first object, respectively, each image being produced at first and second positions with respect to the first object;

inverting the left and right sides of the first and second plane images, respectively;

configuring a first mirror to receive and reflect the first inverted image in a first direction; and

configuring a second mirror to receive and reflect the second inverted image in the first direction;

wherein the first and second mirrors are arranged such that the two mirrors as a whole are substantially "V" shaped.

21. The method of Claim 20, wherein at least one of the first and second mirrors has transmittance of about 50% and reflectance of about 50%.

22. The method of Claim 20, wherein each of the first and second mirrors has reflectance that is greater than 50%.

23. The method of Claim 20, further comprising adjusting the first and second mirrors such that incident and reflection angles of the first and second plane images are in a range of about 30°- 50°.

24. The method of Claim 20, wherein the first and second positions are substantially symmetric with respect to a line that passes the first object in a latitudinal direction.

25. A method of generating a 3-dimensional image from at least two plane images, comprising:

outputting substantially simultaneously first and second plane images for a first object, respectively, each image being produced at first and second positions with respect to the first object;

configuring a first mirror to receive and reflect the first image in a first direction; and

configuring a second mirror to receive and reflect the second image in a second direction opposing the first direction;

configuring a third mirror to receive and reflect the image reflected from the first mirror in a third direction that is substantially perpendicular to the first direction; and

configuring a fourth mirror to receive and reflect the image reflected from the second mirror in a fourth direction that is the same as the third direction and substantially perpendicular to the second direction.

26. The method of Claim 25, wherein the third and fourth mirrors are arranged such that the two mirrors as a whole are substantially "V" shaped.

27. The method of Claim 26, wherein the first and second mirrors are located on opposite sides of third and fourth mirrors.

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